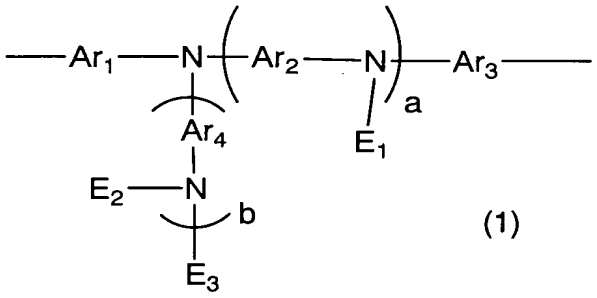
What is claimed is:

1. A polymer compound having a polystyrene reduced number average-molecular weight of 10^3-10^8, and comprising at least one repeating unit selected from the group of repeating units shown by formula (1) or formula (2),



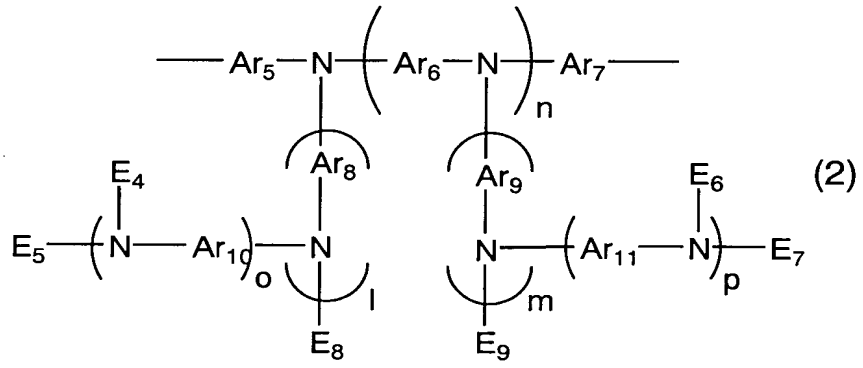
(1)

wherein Ar_1, Ar_2, Ar_3 and Ar_4 each independently represent an arylene group or a divalent heterocyclic group; E_1, E_2, and E_3 each independently represent the below aryl group (A) or heterocyclic group (B); a and b each independently represent 0 or 1, and 0 <=a+b<=1,

aryl group (A): an aryl group which has three or more substituents selected from an alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkoxy group, arylalkylthio group, aryl alkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, monovalent heterocyclic group, or halogen atom,

heterocyclic group (B): a monovalent heterocyclic group which has one or more substituents selected from an alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkoxy group,

arylalkylthio group, aryl alkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, monovalent heterocyclic group, or halogen atom, and the total number of substituents and hetero atoms of the heterocyclic ring is three or more;



(2)

wherein Ar_5, Ar_6, Ar_7, Ar_8, Ar_9, Ar_{10} and Ar_{11} each independently represent an arylene group or a divalent heterocyclic group; E_4, E_5, E_6, E_7, E_8 and E_9 each independently represent an aryl group or a monovalent heterocyclic group; l, m and n each independently represent an integer of 0 to 2; o and p each independently represent an integer of 0 or 1, and l+m+n+o+p is 2 or more.

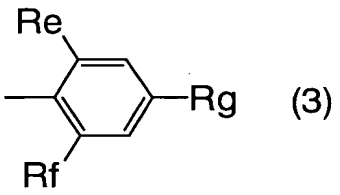
2. The polymer compound according to claim 1, wherein the aryl group (A) has substituents on the carbon atoms selected by following (C),

(C): An arylamine compound derived from aryl group (A) by replacing the free bond of aryl group (A) with amino group, and by replacing all the substituents of aryl group (A) with hydrogen atoms, is considered for the calculation; one of

the highest occupied molecular orbitals (HOMO) of the arylamine compound calculated by AM1 method which is a semi-empirical molecular orbital method, is arbitrarily selected; sum square values of atomic orbital coefficients of the HOMO are calculated only about the carbon atoms to which a hydrogen atom is bonded, and three or more carbon atoms are selected from the carbon atoms having large sum square value in descending order.

3. The polymer compound according to claim 1 or 2, wherein the aryl group (A) is a phenyl, naphthyl, or anthracenyl group having three or more substituents.

4. The polymer compound according to any one of claim 1 to 3, wherein the aryl group (A) is a group represented by the below formula (3)

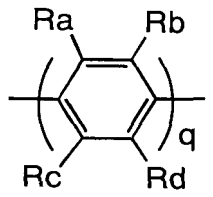


(3)

wherein Re, Rf, and Rg each independently represent an alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkoxy group, arylalkylthio group, arylalkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, monovalent heterocyclic group, or halogen atom.

5. The polymer compound according to claim 1, wherein Ar_5, Ar_6, Ar_7, Ar_8, Ar_9, Ar_{10}, and Ar_{11} in formula (2) each

independently represent a group shown by the below formula (2P)



(2P)

wherein Ra, Rb, Rc and Rd each independently represent a hydrogen atom, alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkoxy group, arylalkylthio group, arylalkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, halogen atom, acyl group, acyloxy group, imino group, amide group, imide group, monovalent heterocyclic group, carboxyl group, substituted carboxyl group, or cyano group; q represents an integer of 1-3; when q is two or more, a plurality of Ras, Rbs, Rcs, or Rds, may be respectively the same or different; Ra and Rb, and Rc and Rd, respectively, may be connected to form an aromatic ring together with the carbon atoms of the benzene ring.

6. The polymer compound according to claim 1, wherein E_4, E_5, E_6, E_7, E_8, and E_9 in the repeating unit of formula (2) each independently represent the below aryl group (A') or heterocyclic group (B'),

aryl group (A'): an aryl group which has three or more substituents selected from an alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group,

arylalkyl group, arylalkoxy group, arylalkylthio group, aryl alkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, monovalent heterocyclic group, or halogen atom,

heterocyclic group (B'): a monovalent heterocyclic group which has one or more substituents selected from an alkyl group, alkoxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkoxy group, arylalkylthio group, aryl alkenyl group, arylalkynyl group, amino group, substituted amino group, silyl group, substituted silyl group, silyloxy group, substituted silyloxy group, monovalent heterocyclic group, or halogen atom, and the total number of substituents and hetero atoms of the heterocyclic ring is three or more.]

7. The polymer compound according to claim 6, wherein the aryl group (A') has substituents on the carbon atoms selected by the following (C').

(C'): An arylamine compound derived from aryl group (A') by replacing the free bond of aryl group (A') with amino group, and by replacing all the substituents of aryl group (A') with hydrogen atoms, is considered for the calculation; one of the highest occupied molecular orbitals (HOMO) of the arylamine compound calculated by AM1 method which is a semi-empirical molecular orbital method, is arbitrarily selected; sum square values of atomic orbital coefficients of the HOMO are calculated only about the carbon atoms to which a hydrogen atom is bonded, and three or more carbon atoms are

selected from the carbon atoms having large sum square value in descending order.

8. The polymer compound according to claim 6 or 7, wherein the aryl group (A') is a phenyl group, naphthyl group, or anthracenyl group having three or more substituents.

9. The polymer compound according to any one of claims 6 to 8, wherein the aryl group (A') is represented by the above formula (3).

10. The polymer compound according to claim 4 or 9, wherein Re and Rf each independently represent alkyl, alkoxy or alkylthio groups having three or less carbon atoms, and Rg represents alkyl, alkoxy or alkylthio groups having 3-20 carbon atoms.

11. The polymer compound according to claim 1, wherein said polymer compound further comprises a repeating unit represented by below formula (4), (5), (6), or (7),

$$-Ar_{12}- \qquad (4)$$

$$-Ar_{12}-X_1-(Ar_{13}-X_2)_c-Ar_{14}- \qquad (5)$$

$$-Ar_{12}-X_2- \qquad (6)$$

$$-X_2- \qquad (7)$$

(in the formula, Ar_{12}, Ar_{13}, and Ar_{14} each independently represent an arylene group, divalent heterocyclic group, or a divalent group having a metal-complex structure; X_1 represents $-CR_2=CR_3-$, $-C\equiv C-$, or $-(SiR_5R_6)_d-$; X_2 represents $-CR_2=CR_3-$, $-C\equiv C-$, $-N(R_4)-$ or $-(SiR_5R_6)_d-$; R_2 and R_3 each independently represent a hydrogen atom, alkyl group, aryl

group, monovalent heterocyclic group, carboxyl group, substituted carboxyl group, or cyano group; R_4, R_5 and R_6 each independently represent a hydrogen atom, alkyl group, aryl group, monovalent heterocyclic group, or arylalkyl group; c represents an integer of 0 to 2; and d represents an integer of 1 to 12.

12. A composition comprising at least a material selected from a hole transporting material, an electron transporting material, and a light-emitting material, and at least the polymer compound according to any one of claims 1 to 11.

13. An ink composition containing the polymer compound according to any one of claims 1 to 11

14. The ink composition according to claim 13, wherein the viscosity is 1 to 20 mPa·s at 25℃.

15. A luminescent thin film containing the polymer compound according to any one of claims 1 to 11.

16. A conductive thin film containing the polymer compound according to any one of claims 1 to 11.

17. An organic-semiconductor thin film containing the polymer compound according to any one of claims 1 to 11.

18. A polymer light-emitting device having a layer containing the polymer compound according to any one of claims 1 to 11, between electrodes consisting of an anode and a cathode.

19. The polymer light-emitting device according to claim 18, wherein the layer is a light emitting layer.

20. The polymer light-emitting device according to claim 19, wherein the light emitting layer further contains a hole

transporting material, an electron transporting material, or a light-emitting material.

21. A flat light source comprising the polymer light-emitting device according to any one of claims 18 to 20.

22. A segment display apparatus comprising the polymer light-emitting device according to any one of claims 18-20.

23. A dot-matrix display apparatus comprising the polymer light-emitting device according to any one of claims 18 to 20.

24. A liquid crystal display comprising the polymer light-emitting device according to any one of claims 18 to 20 as a back light.